

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Transition from TTY to Real-Time Text Technology)	CG Docket No. 16-145
)	
Petition for Rulemaking to Update the Commission’s Rules for Access to Real-Time Text Technology, and Petition for Waiver of Rules Requiring Support of TTY Technology)	GN Docket No. 15-178

COMMENTS OF SPRINT CORPORATION

Sprint Corporation (“Sprint”) hereby submits these comments concerning the Further Notice of Proposed Rulemaking (“FNPRM”) seeking comment on a variety of matters related to the transition from TTY to Real-Time Text (“RTT”) technology.¹ Sprint’s comments will focus on aspects of the FNPRM related to Telecommunications Relay Services (“TRS”).

I. BACKGROUND AND INTRODUCTION

As the nation’s largest TRS provider with over 26 years proudly serving Americans who are deaf, hard-of-hearing, deafblind, or have a speech disability, Sprint believes RTT is an important and necessary step forward as the nation’s telecommunications carriers transition from circuit-switched to IP-based networks. Sprint concurs that TTY technology does not perform well over IP-based networks and that RTT technology will assist in

¹ *In the Matter of Transition from TTY to Real-Time Text Technology, Petition for Rulemaking to Update the Commission’s Rules for Access to Support the Transition from TTY to Real-Time Text Technology, And Petition for Waiver of Rules Requiring Support of TTY Technologies*, Report and Order and Further Notice of Proposed Rulemaking, FCC 16-169 (rel. December 16 ,2016) (“Order” or “FNPRM”).

meeting the needs of individuals who rely on TTY. Sprint looks forward to working with the Commission, wireless service providers and its fellow TRS providers on the implementation of this promising technology.

II. THE COMMISSION SHOULD FOCUS ON RTT AS A TTY REPLACEMENT TECHNOLOGY

Sprint views RTT as a replacement technology for TTY. RTT is the consensus solution to a finite problem – the technical difficulty of sending TTY Baudot tones over an IP network. Sprint is concerned, however, about scope creep as the Commission entertains thoughts of incorporating RTT into other TRS services above and beyond TTY. Given that RTT is a nascent technology with the industry standard in flux and scant testing to date, the prudent course of action would be to first focus on RTT simply as the replacement for TTY. As RTT is rolled out and matures over the next several years, perhaps it would then be appropriate to examine the feasibility of incorporating RTT into other TRS technologies.

In addition, Sprint is unsure how RTT could enhance significantly (if at all) existing TRS including Video Relay Services (“VRS”), Speech-to-Speech relay, as well as Captioned Telephone Services (“CTS”), and IP CTS. VRS is not a text-based service, so it is unclear to Sprint how RTT could enhance the user experience or improve the functional equivalency of VRS. Similarly, as noted in the FNPRM, Sprint does not believe users of Speech-to-Speech relay services would benefit from RTT because they are not reliant upon text-based communications or equipment.²

And, while CTS and IP CTS certainly have a text component (*i.e.*, the captions displayed on the users caption-enabled device), Sprint does not support the extension of

² See, FNPRM at ¶ 85.

RTT to CTS or IP CTS at this time. The incorporation of RTT into CTS/IP CTS may confuse users with multiple streams of text. Moreover, the display screens and formatting in today's CTS/IP CTS equipment are more sophisticated and word-centric rather than RTT's character-by-character display. These differences create conflicts and would fundamentally alter the technology utilized in today's CTS/IP CTS services and equipment. Sprint is willing to explore RTT in the context of CTS/IP CTS, but urges the Commission to first focus on RTT as a TTY replacement before moving forward with extending RTT into other TRS.

Finally, with respect to IP Relay services, Sprint is primarily concerned about the potential negative (or at a minimum unknown) impact of RTT on deafblind users. As the nation's lone provider of IP Relay services, Sprint has invested heavily to ensure its IP Relay services meet the needs of deafblind users. Sprint would need to work with the deafblind community to understand the potential benefits and risks of RTT in serving this population. Again, Sprint is open to exploring RTT within the context of IP Relay, but encourages the Commission to first focus on TTY replacement.

III. A MANDATE TO SUPPORT TTY IS UNNECESSARY FOR TRS PROVIDERS

A Commission mandate is unnecessary to ensure the incorporation of RTT into the provision of TRS providers' operations. TRS providers have ample incentive to ensure they are able to support RTT as wireless providers begin to launch these services over the next couple years. From Sprint's perspective, the incentive – as it has always been for Sprint as a TRS provider – is to provide the highest quality services to the nation's population that benefit from TRS. And that includes supporting cutting-edge technologies like RTT (in the

same way Sprint was a leader in providing iTRS services with the advent of IP-based technologies). As the wireless industry rolls out RTT technology into tens if not hundreds of millions of devices over the coming years, Sprint will ensure that it is prepared to support RTT. Moreover, Sprint has a competitive incentive to ensure it is providing the most up-to-date technologies. Failure to incorporate RTT into its TRS operations will not only harm Sprint's reputation within the community, but it could also impact Sprint's ability to retain existing state TRS contracts or win new business.

IV. THE INCORPORATION OF RTT REQUIRES A FUNDAMENTAL SHIFT IN SPRINT'S TRS OPERATIONS

The Commission seeks input as to the "costs, benefits and technical feasibility of enabling" RTT for TRS providers and further inquires as to the "changes that would be needed in TRS equipment (e.g., hardware, software, or applications)."³ Today, Sprint's TTY services necessarily rely on analog platform in order to deliver the TTY Baudot tones. RTT represents a fundamental shift away from analog to digital – namely to IP or SIP-based protocols. Sprint is confident in its technical ability to accomplish this fundamental shift from analog TTY to digital RTT. There will, however, be impacts at all levels of Sprint TRS operations from the network to Sprint's TRS platform down to the agents' desktops and will require new hardware and software.

³ See, FNPRM at ¶ 82.

V. THE COMMISSION SHOULD PROVIDE TRS PROVIDERS WITH EXOGENOUS COST RECOVERY AND COMPENSATE RTT AT MARS-BASED TTY RATES

Sprint will incur undoubtedly substantial costs to ensure that it is capable of supporting RTT. This is not a simple project but rather a major undertaking involving a significant level of effort affecting nearly all aspects of Sprint's relay business from the network, hardware and software changes described above to revised training for Sprint's Communications Assistants. The Commission must ensure that TRS providers are permitted to recover their costs to support RTT. While cost recovery can take many forms, Sprint urges the Commission to consider a direct reimbursement for the reasonable costs incurred by TRS providers to enable RTT on their respective platforms. Importantly, Sprint's relay operations have not included RTT costs within its interstate TRS cost recovery filings nor has it included these costs within its state contracts. In other words, the costs to support RTT represent new, unaccounted or exogenous costs. As such, Sprint believes a one-time, non-recurring direct reimbursement is a reasonable request for an exogenous event such as the implementation of a new technology like RTT.

Finally, once Sprint implements RTT and begins processing calls through its relay centers, Sprint believes these RTT calls should be reimbursed at the existing TTY rate. As Sprint has maintained for many years, the Multistate Average Rate Structure ("MARS") is the most appropriate rate-setting methodology for both TTY and IP Relay. RTT, like TTY, will have a significant intrastate component as RTT calls will be processed by calling 711 state relay centers. Hence, the multistate averaging of TTY reimbursement rates is the reasonable and appropriate approach to rate setting. Moreover, Sprint expects the same agents, sitting at the same stations within Sprint's existing relay call centers will be handling

both RTT and TTY calls (as well as IP Relay calls). In short, the TTY reimbursement rate is a reasonable and appropriate proxy rate for RTT calls.

VI. THE APPLICATION OF TTY FEDERAL MINIMUM STANDARDS ARE APPROPRIATE FOR RTT

The Commission asks “should we require RTT-based TRS providers to meet the same mandatory minimum standards as currently applied to TTY-based TRS.”⁴ As discussed in Section V above, from Sprint’s perspective, TTY-based TRS and RTT will be nearly identical (same agents/same relay centers performing nearly identical relay work). Again, while Sprint is not in favor of a federal mandate requiring TRS providers to implement RTT, to the extent that TRS providers choose to support RTT and seek reimbursement from the Interstate TRS fund, Sprint believes it would be appropriate for the Commission and its TRS Fund Administrator to apply the same federal minimum standards that it applies to TTY traffic (*i.e.*, traditional TRS traffic).

VII. RTT MAY LEAD TO MISUSE OF TRS

Finally, one notable difference between TTY traffic and RTT traffic is that TTY traffic has a natural choke-point because it requires specialized equipment. In contrast, RTT will eventually be built into every wireless device. Sprint is concerned that RTT may, therefore, be ripe for misuse leading to misappropriation of scarce TRS resources. Sprint will begin exploring ways in which to combat potential misuse. Certainly, tracking the ten-digit number will assist Sprint investigations; however, spoofing and other fraudulent activities may hamper Sprint’s ability to eliminate such misuse. While RTT user registration would also combat misuse, Sprint believes registration – similar to that used for

⁴ FNPRM at ¶ 83.

IP Relay and IP CTS – would be antithetical to broad adoption of the technology. In short, Sprint wishes to alert the Commission to this matter and assures the Commission it will take proactive measures to address misuse.

Respectfully submitted,

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